

WHAT IS CLAIMED IS:

1. An optical recording medium onto which recording information can be recorded optically, comprising:

5 a first area where the recording information is recorded on groove tracks formed meanderingly so as to extract wobble signal;

a second area where a phase pit string corresponding to control data required for reproduction control of the recording information is arranged meanderingly, the phase pit string having a pit depth so that
10 it enables the control data to be read and reading of other data overwritten on the phase pit string is prevented; and

a third area where a phase pit string corresponding to predetermined data is arranged meanderingly, the phase pit string having a pit depth so that it enables pre-pits including address
15 information representing a recording position on said optical recording medium to be read and reading of other data overwritten on the phase pit string is prevented,

wherein a meandering amplitude of said second area and a meandering amplitude of said third area are set so that output levels of
20 wobble signals extracted from said respective areas are approximately equal to an output level of the wobble signal extracted from said first area.

2. The optical recording medium according to claim 1, wherein the
25 pre-pits are formed at least on said first area and said third area.

3. The optical recording medium according to claim 2, wherein the

pit depth on said third area is set so as to be equal to the depth of the groove tracks of said second area.

4. The optical recording medium according to claim 3, wherein
5 on said first area, a depth of the groove tracks is set to 30 nm,
on said second area, the pit depth is set to 80 nm, an average
duty of the pit string is set to approximately 50%, and the meandering
amplitude is set to be approximately 2.7 times as much as that of said
first area, and

10 on the third area, the pit depth is set to 30 nm, an average duty
of the pit string is approximately 80%, and the meandering amplitude is
set to be approximately 1.3 times as much as that of said first area.

5. The optical recording medium according to claim 2, wherein the
15 meandering amplitude of said third area is set so as to be equal to the
meandering amplitude of said first area.

6. The optical recording medium according to claim 5, wherein
on said first area, a depth of the groove tracks is set to 30 nm,
20 on said second area, the pit depth is set to 80 nm, an average
duty of the pit string is set to approximately 50%, and the meandering
amplitude is set so as to be approximately 2.7 times as much as that of
said first area, and

on said third area, the pit depth is set to 50 nm, an average duty
25 of the pit string is set to approximately 80%, and the meandering
amplitude is set to be equal to that of said first area.

7. An optical recording medium producing apparatus for producing an optical recording medium onto which recording information can be recorded optically using an optical disc master, comprising:

5 a first area forming device for cutting groove tracks meanderingly on said optical disc master using a light beam modulated by a wobble signal so as to form a first area onto which the recording information is recorded;

a second area forming device for meanderingly cutting a phase pit string corresponding to control data required for reproduction control of the recording information on said optical disc master using the light beam modulated by the wobble signal so as to provide a pit depth which enables reading of the control data and which prevents reading of other data overwritten on the phase pit string, and for forming a second area; and

15 a third area forming device for meanderingly cutting a phase pit string corresponding to predetermined data on said optical disc master using the light beam modulated by the wobble signal so as to provide a pit depth which enables reading of pre-pits including address information representing a recording position on said optical recording medium and which prevents reading of other data overwritten on the phase pit string, and for forming a third area,

20 wherein in said second area forming device and said third area forming device, a degree of modulation of the light beams due to the wobble signal is set so the output levels of wobble signals extracted from said respective areas are approximately equal to an output level of the wobble signal extracted from said first area at the time of reproduction from said optical recording medium produced by using

said optical disc master.

8. The optical recording medium producing apparatus according to claim 7, wherein said first area forming device and said third area forming device form the pre-pits.

9. An optical recording medium producing method for producing an optical recording medium onto which recording information can be recorded optically using an optical disc master, said method comprising:

a first area forming process of meanderingly cutting groove tracks on said optical disc master using a light beam modulated by a wobble signal so as to form a first area on which the recording information is recorded;

a second area forming process of meanderingly cutting a phase pit string corresponding to control data required for reproduction control of the recording information on said optical disc master using the light beam modulated by the wobble signal so as to provide a pit depth which enables reading of the control data and which prevents reading of other data overwritten on the phase pit string, and of forming a second area; and

a third area forming process of meanderingly cutting a phase pit string corresponding to predetermined data on said optical disc master using the light beam modulated by the wobble signal so as to provide a pit depth which enables reading of pre-pits including address information representing a recording position on said optical recording medium and which prevents reading of other data overwritten on the

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phase pit string, and of forming a third area,

wherein at the second area forming process and the third area forming step, a degree of modulation of the light beam due to the wobble signal is set so that output levels of the wobble signals extracted from said respective areas are approximately equal to an output level of the wobble signal extracted from said first area.

10. The optical recording medium producing method according to claim 9, wherein the first area forming process and the third area forming process form the pre-pits.